PATENT ABSTRACTS OF JAPAN

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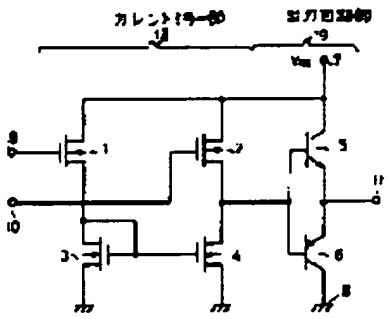
(54) LEVEL CONVERTING CIRCUIT

(57)Abstract:
PURPOSE: To remarkably decrease the number of elements and to improve the signal propagation speed by constituting an output circuit part of a series circuit of an NPN bipolar transistor and a PNP bipolar transistor.
CONSTITUTION: When a high level and a low level are inputted to an input terminal 9 and an input terminal 10, respectively, a P channel MOS transistor 1 becomes a turn-off state, and an N channel MOS transistor 4 for allowing a mirror output current to flow becomes a turn-off state. On the other hand, a P channel MOS transistor 2 through which a mirror output current flows comes to a turn-on state, a base current of an NPN bipolar transistor 5 is supplied and comes to a turn-on state, and an output terminal 11 goes to a high level. Subsequently, when a low level and a high level are inputted to the input terminal 9 and the input terminal 10, respectively, the P channel MOS transistor 1 comes to a turn-on state, and the N channel MOS transistor 4 and a PNP bipolar transistor 6 come to a turn-on state, therefore, the output terminal 11 goes to a low level.



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